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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/486,823    03/03/00    SHIMADA

J    506.38266X00

020457    HM12/0926  
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EXAMINER
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SPIVACK, P	
ART UNIT	PAPER NUMBER

1614  
DATE MAILED:

09/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

# Office Action Summary

Application No.  
09/486,823

Applicant(s)  
Shimada et al.

Examiner  
Phyllis Spivack

Art Unit  
1614



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Aug 28, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 6-17 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

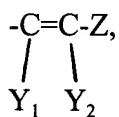
- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

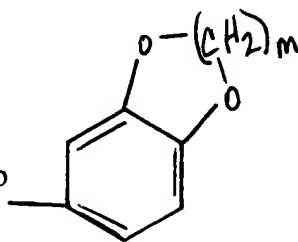
- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 20) ☐ Other: \_\_\_\_\_

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Applicants' Amendment filed August 28, 2001, Paper No. 11, is acknowledged and has been entered. Claims 6-17 remain under consideration wherein the  $R_4$  moiety is presently limited to  $-(CH_2)-R_5$ , and  $R_5$  is selected from furyl, thienyl, pyrrolyl, pyranyl, thiopyranyl, pyridyl, thiazolyl, imidazolyl, pyrimidyl, triazinyl, indolyl, quinolyl, purinyl and benzothiazolyl, or,



and Z is aryl or the group



The finality set forth in the last Office Action is withdrawn.

Subsequent to the amendments to claims 6, 10 and 14, the rejections of record under 35 U.S.C. 102(b) as being anticipated by Badger et al., U.S. Patent No. 4,772,607, and as being anticipated by Kamoun et al., U.S. Patent No. 5,173,491, are no longer proper and are withdrawn.

In the first Office Action the claims were rejected under 35 U.S.C. 112, first paragraph, for lacking enablement for compounds of formula I wherein any heterocyclic group is possible for the  $R_5$  group. In view of the diverse functionalities among the 14 heterocyclic groups presently claimed for  $R_5$  and the specificity of the adenosine  $A_2$  receptor, the specification fails to provide support commensurate in scope with the claims. The rejection of record under 35 U.S.C. 112, first paragraph, is maintained and is presently extended to include all of the claims now under consideration.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 6, 7, 10, 11, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuefner-Muehl et al., DE 3843117.

Kuefner- Muehl teaches the administration of xanthines as adenosine receptor antagonists to treat aging-related illness such as the neurodegeneration seen in Alzheimer's disease. See, in particular, page 4, lines 42-60.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 6-17 are rejected under 35 U.S.C. 102(a) as being anticipated by Miwa et al., JP 09040652 (abstract).

Miwa teaches the administration of compounds of instant formula I wherein  $R_4$  is the formula  $\begin{array}{c} -C=C-Z \\ / \quad | \\ Y_1 \quad Y_2 \end{array}$  and Z is substituted phenyl for use in the treatment of degenerative disorders

such as dementia and Parkinson's disease. Alzheimer's disease is characterized by neurodegeneration of the brain resulting in progressive loss of mental capacity.

No claim is allowed.

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Baraldi et al., Current Medicinal Chemistry (abstract) is cited to show further the state of the art.

Any inquiry concerning this communication should be directed to Phyllis Spivack at telephone number (703) 308-4703.

September 24, 2001

A handwritten signature in black ink that reads "Phyllis Spivack". The signature is written in a cursive, flowing style.

PHYLLIS SPIVACK  
PRIMARY EXAMINER